

NEW YORK'S LABORATORY OF THE MYSTERIOUS

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Drawing by ROY WILLIAMS

The American Psychological Institute Takes as Its Fascinating Field for Experiment the No-Man's Land Between Spirit and Matter

HERE has recently been founded in New York a laboratory for the exclusive study of the unknown powers of mind and body, all sorts of psychical and odd physical phenomena. This is the first Institute of its kind in this country—in fact, in the world. Here will be undertaken researches into the vast unknown, into the borderland of spirit and matter, into that mysterious beyond which so fascinates us all. But these researches will be conducted by means of delicate electrical and physical instruments and in the strictest scientific manner.

A few isolated investigators have in the past made researches in this line, but no organized and systematic attempt has ever been made. Men have speculated for thousands of years to solve the great problem of the soul, but now science is taking up the question.

What Happens to Bodily Energy After Death?

Associated with the research officer are William Russell, high frequency and electrical engineer, who is the technical expert, and a number of able physicians, psychologists and general scientists, who are to act in the capacity of "consulting specialists" and are to have charge of the therapeutic work.

Is the life of the body an energy? If so something must happen to it at the moment of death, for it is inconceivable that it could be altogether annihilated. Where does it go? Is it not possible that some sort of instrument might be devised capable of "catching" this energy and obtaining its definite registration? And if this energy continues to persist might it not be capable of continually affecting such an instrument? These questions are perfectly scientific and perfectly legitimate and lend themselves to scientific treatment. This is one of the questions which the psychic laboratory is about to set itself to solve.

Then again there is a certain amount of evidence that the human will can exert a definite physical pressure. We have an instrument which is capable of registering this and a number of experiments are now being conducted in order to prove it. Dr. Charles Russ, of England, has lately asserted that the human eye radiates a certain energy which will affect his special instrument. A number of experiments will be conducted in this direction also.

Dr. Kilner, of St. Thomas's Hospital, London, has conducted researches upon the so-called human "aura"—an atmosphere which surrounds the body—and has devised glass slides, or screens, filled with a chemical called "dicyanin," a coal-tar dye, by means of which the aura can be rendered visible. Extensive experiments upon the aura must be undertaken, with a view to photographing it and also to study the effect upon the aura of other physical forces such as electricity, magnetism, the action of certain chemicals, etc.

French investigators, again, have devised a number of instruments whereby the vital radiations, issuing from the human body, can be detected and registered. "Mediums," and other unusual individuals, seem to radiate an energy from their finger-tips and this energy should be definitely measured and the nature of the radiation discovered. Preliminary tests in this direction, indeed, forced Dr. Imoda to declare that "the radiations of radium, the cathode radiations of the Crookes tube, and mediumistic radiations are fundamentally the same." He based this conclusion upon a number of experiments in which an electroscope had been discharged without contact—merely by holding the fingers above it.

What Used To Be Fanciful Is Now a Reality

These examples will be sufficient to illustrate the kind of phenomena which may profitably be investigated in a laboratory such as this. There need be nothing unscientific about such an effort. Science does not consist in a body of facts—as many believe—but in a method. One can be absolutely scientific as to the investigation of a "haunted house" and absolutely unscientific in a problem in physics. The facts of science are constantly changing, the method never! And the fanciful and "impossible" of yesterday have become the reality of to-day. In view of these undoubted facts let us keep an open mind and endeavor to investigate any odd and bizarre facts which may present themselves—seeing to it that we always employ the methods of science.

Many other striking and unusual phenomena could be studied in this manner. Movements of objects without contact, the direct photography of thought, instrumental tests of mediums during trances, hypnosis, sleep under an anesthetic,

etc., photographing and weighing the soul at the moment of death, the effect of light, color, music, etc., upon normal and abnormal individuals, psychotherapy and psycho-analysis, instrumental tests of phenomena said to be produced by certain "physical" mediums, etc.—all these would form the basis of study in this laboratory.

Let me give an outline of a few of the instruments which we have so far devised and have in operation in the psychical laboratory. I must select a few only, because space prohibits any extensive treatment of this side of the question. Some of them are new, especially devised for the purpose; others are well known instruments, which have been employed in novel ways.

In the latter class I would place a galvanometer, which we have employed in a new way to test the reality of the so-called "spirit control," speaking through a medium when in trance. We employ a mirror galvanometer for this purpose, connected with a Wheatstone bridge and connected to the medium by two electrodes, covered with sponges which have been moistened with salt and water.

A galvanometer is an instrument which registers slight changes in electric currents. If any emotion is aroused in the subject this will cause the resistance offered by the body to the electric current to vary, and more current will pass through the subject's body as the emotion is aroused. This variation of current is shown in the galvanometer. A small mirror swings to the right or left as the current varies, and this can be observed through a slit, through which the observer looks, or it can be caused to reflect a beam of light on the opposite wall, which will travel over a scale drawn upon the wall, so that a very slight movement of the mirror will cause a large variation on the scale at a distance.

This has been employed in the past to test emotions, and has been applied in criminal investigations to test the emotional reactions of the subject when asked certain questions in court.

It can be applied in psychic investigation in this way. A list of words is read to the medium when in the normal state. Emotional reactions will be noted to certain words, which are reported.

Now, when the medium goes into a trance and a "spirit" claims to be talking through her, the question is: Is this a real "spirit" or only a part of the sub-conscious mind of the medium? Hitherto it has been impossible to prove this by any objective test.

The instrument, however, shows it in the following manner: If the trance personality, claiming to be a "spirit," reacts emotionally to the same words as those to which the medium reacted, we have proof that we are dealing with the same mind—that is, the medium. If, on the contrary, we obtain emotional reactions to different words, we have proof that we are dealing with a different mind—either a "spirit" (as the intelligence claims to be) or an absolutely water-tight compartment in the medium's sub-conscious mind, which reacts to different words than the medium's normal mind. Hitherto investigations have failed to show the existence of any such water-tight compartment, in cases of hypnosis, multiple personality, etc., which show emotional reactions of a totally different kind from those exhibited from the normal personality of the medium. Experiments in this direction are now being undertaken, and it seems fairly clear that, if successful, they would prove the reality of some alien mind different from that of the medium herself.

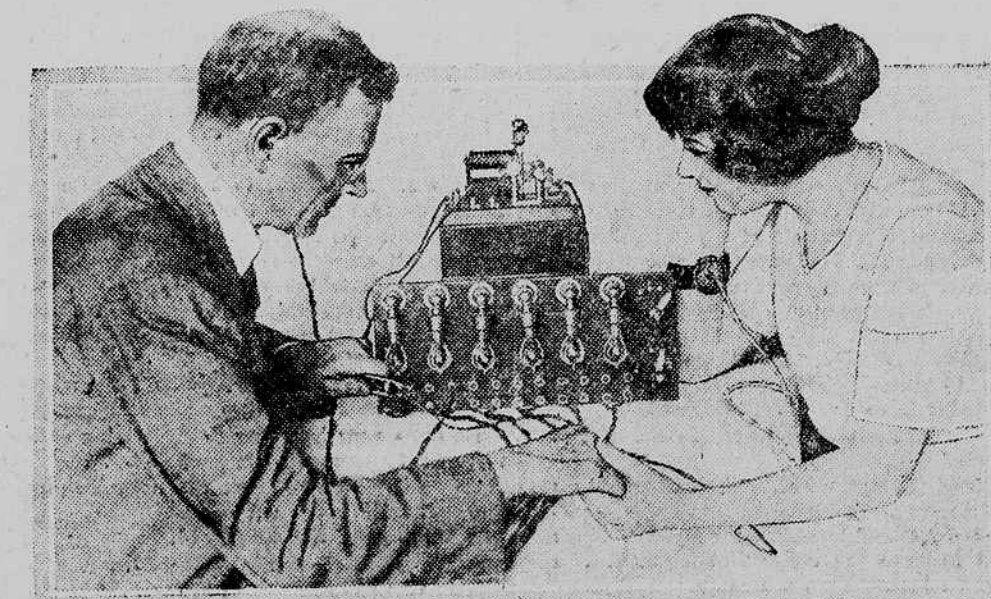
A special instrument which has been devised by Dr. Paul Joire, and known as a "sthenometer" has been employed to detect vital radiations issuing from the finger tips. A straw is nicely balanced on a needle-point, the lower end of which is imbedded in cork. The straw revolves over a graduated disc, showing the number of degrees which the straw moves in

either direction. A bell-shaped glass completely covers the straw, thus shutting off air currents and normal causes which would affect the movement of the straw.

The subject is requested to place one or both hands near the ends of the straw, on the outside of the glass and, in a certain percentage of cases, definite movements of the straw can be detected, ranging over a certain number of degrees, right or left. In psychic subjects this is very marked. Dr. Schofield, of London, uses this machine regularly in his medical practice and states that in hysterical and neurasthenic patients definite movements can always be obtained.

The movement of the straw is due, apparently, to a "vital energy" which issues from the finger tips. It is not heat, since a hot-iron will not cause the straw to move; and, further, the hands, even when cold, will cause movements. It is not electricity, for the glass would act as an insulator. Normal causes thus seem to be eliminated, and the movement of the straw is left to be accounted for by other forces yet unknown. It sometimes swings in one direction and sometimes in another, sometimes backward and forward, and sometimes steadily in one direction. One observer has reported that neurasthenic subjects caused the straw to move to the right and hysterical subjects to the left.

Another special device which is being tested



HOLDING HANDS FOR A PSYCHIC PURPOSE

This machine, when attached to a human circle, at a seance, will give both sight and sound signals of any variation of energy noted in the body of any member of it; visibly by means of the electric lamp, and by sound as the vibrator (shown above the lamp board) increases in rapidity. Every member of the circle is separately connected to a lamp, and as the energies of the body of any member of the circle are affected and drawn upon by some outside force—"a spirit," for example—this will at once be registered. The current is supplied by a regular 110-volt circuit, one electrode or terminus being fastened to the arm of a sitter at one end of the circle and the other electrode to the arm of the sitter at the other end. The intermediate sitters all join hands. If the energy of a certain sitter's body is drawn upon for the production of any phenomena, this is at once shown in the lamp and the vibrating machine. By altering the switch it can at once be discovered which member of the circle is thus drawn upon—that is to say, which is the "medium"

New Electrical and Physical Apparatus, Ingeniously Devised, Aids Science in Its Search for the Master Key to the Unknown

to speak, in the shape of a triangle also. If one of the electrodes were cut in the shape of a human figure then this image might be impressed upon the smoke or vapor, which would be to some extent cut out in its shape.

Now, if this proved to be the case, we have here a striking analogy to the so-called "psycho-dynamic" theory of materialization, in which the semi-material substance issuing from the medium's body is plastically molded into human form by the dynamic energy of the medium's sub-conscious will—in the same way that the vapor is molded into human form in the present experiment. (It may be said that this theory has been worked out in great detail by Morselli, Flournoy and others, who believe that materialization, even when genuine, is not due to "spirits" but to the action of the will upon the matter drawn from the medium's body, which is thus molded by the sub-conscious mind of the medium. These phantom forms are, therefore, on this theory, temporary creations which are built up for the time being and go out of existence at the conclusion of the seance, in much the same way that the "people" we meet in our dreams are temporary creations, which we have built up and endowed with life and which go into non-existence the moment we wake up.)

An Experiment in Locating "The Astral Body"

Here is another experiment which may strike one as fantastic at first, but which should certainly be tried and which we intend to try in our laboratory in the near future. I shall assume, for the sake of argument, that some such entity as a "double" or "astral body" exists and that animals, as well as human beings, may possess such a vehicle. I shall further assume, merely for the sake of the experiment, that this "astral body" is driven out of the physical body by an anesthetic (which is, of course, the "occult" teaching). With these two tentative assumptions in mind, let us try the following experiment:

Arrange a small box so as to imprison some animal—a dog, cat, or a small monkey. The box may be of aluminum, with a glass window, and must be hermetically sealed, except that an entrance pipe, provided with a stop-cock, must be fitted to admit air. This first box is suspended by four chains at its corners within a second box of glass, also hermetically sealed. The first box thus hangs suspended in the center of the second box. The pipe which is to admit air must, of course, pass to the outside of the larger box—the stop-cock being on the outside.

The pipe which is to administer the anesthetic must also pass through the outer box into the smaller one. An air pump is also attached by means of a flexible pipe to the outer box, so that a stroke or two of the air pump will reduce the air pressure within the outer box.

Between these two boxes it is necessary to prepare an atmosphere of perfectly dust-free air or water vapor. Under these conditions we commence operations by admitting gas to the small box, so as to anesthetize the animal. At the same time, we gradually shut off the outer air supply. The anesthetic will by hypothesis displace the secondary or astral body of the imprisoned animal. This in theory must then occupy a position somewhere in the two boxes—that is, in the prepared atmosphere. But also by hypothesis it will generate rays of some description, since it has been virtually proved that all living bodies emit vital radiations of some sort. These rays, of whatever nature they may ultimately prove to be, will cause ionization. Now, with a stroke or two of the air pump we rapidly withdraw some of the air, causing the remaining air to expand suddenly. The temperature will immediately fall, and this will cause the water vapor to condense upon the ions. But the particles producing ionization have not a very extended range, at least some of them have not, and probably a variety of rays will be given off. Those particles of short range, then, will not produce ionization far from their source—that is, the astral body. Therefore, when condensation occurs, the resulting line should outline the form of the astral body. We shall have proved the existence of this body by thoroughly objective means!

Continually Seeking a Door To the Spirit World

Could we but find in this laboratory an energy common to the two worlds—the spiritual world and the material world—we should have here a means of direct communication, possibly by instrumental means. Delicate physical and electrical apparatus might be the means after all by which such communication will ultimately be established. At all events, when subtle causes and forces are in operation, as they certainly are at such times, it is only natural to suppose that instruments far more delicate than our senses would be the logical method of detecting them.

This is the object of the American Psychical Institute—to conduct experiments which will serve to throw light upon the hidden powers of our being, upon that vast borderland which lies between spirit and matter.

will be recorded, which is registered on the scale.

Another piece of apparatus employed in the psychic laboratory might be called the "ululometer" or "psychic howler." Its object is to reveal the presence of any energy or body, visible or invisible, within its field, by a loud noise, which sometimes becomes a howl. The electric energy passing through the amplifying machine and the large coil are affected and variations are produced in the amount of current by any other energy or body approaching it. It is delicately adjusted, and the resulting electric changes in the instrument are converted into audible sounds in the telephone receivers placed over the observer's ears.

If a human body, which is a source of electric energy, approaches the coil, it will affect the electric energy passing through it and, thus modifying it, will cause sounds in the

telephone receivers, which are plainly audible. The electric energy radiated by the heart when beating, by breathing, etc., is thus recorded when the subject is near the machine. As the whole body approaches it will "howl" with a very loud, high note, which increases in pitch as the body approaches nearer and nearer the coil. If any form of energy, such as that possessed by a "spirit" or an "astral body," therefore, were in the vicinity and approached this machine, the latter would at once give evidence of its proximity by variations in the electric current, which would at once be heard by the observer at the telephones. That is to say, if no visible body be near the coil and sounds are nevertheless heard, there must be some invisible body, or some mode of energy, in the immediate environment of the coil which the latter thus records. It can thus be seen that this coil would be the means of detecting the presence of unknown forces or entities within its immediate radius.

These are some of the instruments which are employed in the American Psychical Laboratory for the purpose of testing the unknown powers of mind and body which we undoubtedly possess and the nature of certain psychic phenomena, of course, which readily lend themselves to an investigation of this character, among which I may mention thought photography, "dowsing" or water finding, radiations said to be emitted by magnets, crystals and other bodies, experiments in weighing and photographing the soul at the moment of death, experimentally induced dreams, the polarity of the human body and the nature of the electrical and other energies within it, experiments upon the human aura, experiments in the projection of the astral body, etc. A great deal of work has been done in France, England, Germany, Poland, Japan and elsewhere in these directions, but no organized attempt has been made as yet to study them by suitable laboratory methods.

We are also attempting to duplicate or reproduce in our laboratory purely by physical and electrical means certain psychic phenomena to discover, if possible, the analogies and connections which may exist between the one and the other. It is my belief that much may be gained in this field by attempts to duplicate by artificial means certain spiritistic and psychical phenomena, and in this manner to ascertain the possible relations or connections between these manifestations and other physical or electrical phenomena better known. All advance in science is made by dovetailing the unknown into the known and showing their possible connections. It is the same here. In attempting to duplicate certain psychic phenomena we may at least discover some useful analogies which may guide our thought in further investigation.

If a column of smoke or vapor be placed in a high tension electric field it is possible under certain conditions to influence this column of vapor by means of an electric current passing between the two electrodes. That is to say, the electric current will influence the column of vapor through which it passes. If one of the electrodes be cut out in the shape of a triangle, let us say, the vapor is cut out, so